Shunsuke SERIZAWA*: **Taxonomical notes on Asian ferns (1)**

芹沢俊介*: アジア産シダ植物考察 (1)

1. **Athyrium arisanense** (Hayata) Tagawa, Acta Phytotax. Geobot. 2: 195 (1933), Journn. Jap. Bot. 12: 749 (1936); H. Ito, Fil. Jap. Ill. pl. 179 (1944).

Diplazium arisanense Hayata, Ic. Pl. Formos. 4: 212, fig. 144 (1914).

Asplenium sinense Baker, Kew Bull. Inf. 1906: 9 (1906).

Athyrium sinense (Baker) C. Chr. Ind. Fil. Suppl. 15 (1913) non Rupr. (1845).

Athyrium mengtzeense Hieron. Hedwigia 59: 319 (1918).

Nom. Jap. Arisan-inuwarabi (T. Ito), Arisan-warabi (Hayata).

Hab. Wilson-stock, Kosugidani, Yaku-isl., Pref. Kagoshima (S. Serizawa, no. 7359–61, Aug. 1968).

Distr. Japan (Yaku-isl., rare), Taiwan and South-Eastern China.

A new addition to the flora of Japan. All records of this species hitherto made from Japan should be referred to the next variety or next species.

var. **kenzo-satakei** (Kurata) Serizawa, stat. nov.

Athyrium kenzo-satakei Kurata, Journ. Geobot. 7: 75 (1958), Sci. Rep. Yokosuka City Mus. 6: 24 (1961).

Nom. Jap. Shibi-inuwarabi (Kurata).

Distr. Japan (Kyushu: Northern parts of Pref. Kagoshima and Yaku-isl.).

This fern differs from the typical phase of *A. arisanense* in generally larger and thicker fronds, more shallowly dissected pinnules, very short or absent spinules on the costae of pinnae, and always black scales on the base of stipes. However, those characters of *A. arisanense* are so variable that single criterion of those could not be evaluated as a sufficient character to separate var. *arisanense* and var. *kenzo-satakei*.

2. **Athyrium kuratae** Serizawa, sp. nov.

Diplazium arisanense auct. non Hayata: Masamune, Fl. Geobot. Stud. Isl. Yakushima 72 (1934) (?).

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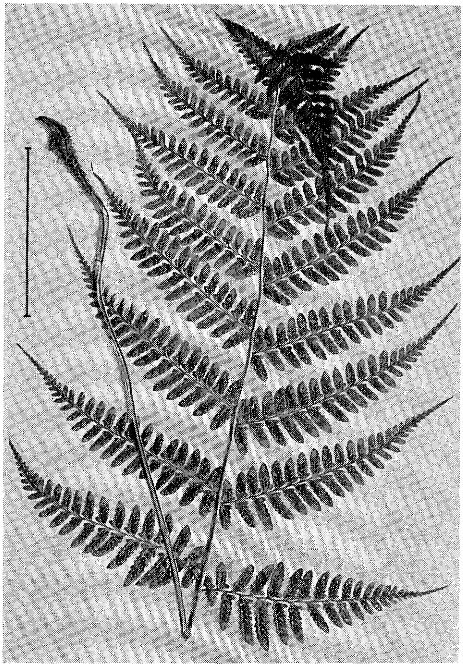

Fig. 1. *Athyrium kuratae* (holotype). ⊢⊣ 10 cm.

Athyrium arisanense auct. non Tagawa: Kurata, Hokuriku Journ. Bot. **6**: 42 (1957), Sci. Rep. Yokosuka City Mus. **6**: 19 (1961); Ohwi, Fl. Jap. Pter. 121 (1957).

Rhizoma erectum vel ascendente erectum. Frondes fasciculatae. Stipes 20–45 cm longus 2–3.5 mm crassus supra sulcatus, purpurascens, basi densissime sursum parce squamatus; squamis inferioribus linearibus vel subulato-lanceolatis 7–12 mm longis 0.5–1.2 mm latis, apice filiformi-acuminatis basi subcordato-truncatis margine integris membranaceis, rufo-brunneis medio interdum fuscescentibus, squamis superioribus subulato-lanceolatis vel subangusto-lanceolatis 5–7 mm longis, subpallido-rufo-brunneis concoloribus. Lamina frondis deltoido-ovata vel elongato-ovata 30–45 cm longa 20–32 cm lata, apice gradatim caudato-acuminata, subcoriaceo-herbacea, bipinnata; pinnis utrinque 8–9 (numerus in 2/3 parte inferiore laminae), patentibus, infimis oppositis vel suboppositis, elongato-ovatis vel lanceolatis 10.5–18 cm longis, apice caudato-acuminatis basi rotundatis brevissime petiolatis, petiolis 1.5–4 mm longis pinnulis basalibus inferioribus contractis 0.8–1.3 cm longis, tertiis—quinctis longissimis 2.0–3.5 cm longis, margine serrato-dentatis vel vadose pinnatis, pinnis mediis suboppositis vel alternatis a se 2.5–5 cm remotis, lanceolatis 8–16 cm longis 2–3.7 cm latis, a medio usque ad basim aequilatis, sessilibus vel subsessilibus, pinnulis basalibus distincte catadromis, pinnulis utrinque 11–13 (numerus in 2/3 parte inferiore pinnae), ovato-oblongis 1.2–2.3 cm longis 4–8 mm latis, apice obtusis basi anteriore latissime cuneatis subauriculatis posteriore cuneatis, sessilibus plus minus adnatis. Rhachis purpurascens, utrinque

prope basim pinnarum pilis unicellularibus glandulosis dense obtecta. Costae pinnarum purpurascentes, utrinque praecipue ad basim et prope basim pinnularum pilis subparce obtectae, supra sulcatae, inferioribus non-setuligeris vel indistincte setuligeris, superioribus distincte setuligeris. Sori utroque latere prope costulas pinnularum uniseriatim dispositi, elongato-oblongi 2–3.5 mm longi asplenioidei; indusiis pallido-brunneis membranaceis, margine subintegris.

Nom. Jap. Tsukushi-inuwarabi (Serizawa, 1969).

Hab. Kosugidani, Yaku-isl., Pref. Kagoshima (S. Serizawa, no. 7053, Jul. 1968—holotype in TNS; no. 7054–55, 7142–46, Jul. 1968); near Wilson-stock (S. Serizawa, no. 7329, 7471–73, 7482–84, Aug. 1968).

Distr. Japan (Hachijo-isl., Izu-peninsula and western parts of Honshu, Shikoku and Kyushu) and Taiwan.

This new species is rather variable. Above description is based on the materials of Yaku-island, which have larger, more shallowly dissected and strongly adnate pinnules in comparison with the specimens collected from other places. The specimens from Yaku-island are similar to *A. arisanense* which differs from *A. kuratae* by sparser and shorter scales, thinner stipes and rachides and texture of laminae, generally submedial sori, etc. Materials of Honshu, Shikoku and mainland of Kyushu have smaller, more deeply dissected and rather independent pinnules, and this phase of *A. kuratae* is similar to *A. otophorum* which differs from *A. kuratae* by perfectly independent pinnules, black and rather sparse scales, etc. The Formosan material agrees with the latter phase.

3. **Asplenium trichomanes** L. var. **subtrialatum** Serizawa, var. nov.

A typo differt rhachidibus

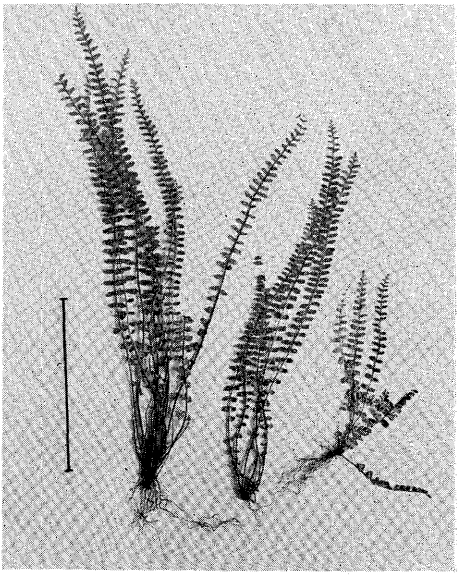

Fig. 2. *Asplenium trichomanes* var. *subtrialatum* (left: holotype).

laminarum subtrialatis.

Rhizome small, erect or ascendent, leaves erect and fasciculate. Stipes 1.5–5 cm long, reddish brown, not so breakable, two-winged, base clothed with clear scales, scales lanceolate, 3–5 mm long, pale brown and dark-lined. Lamina linear, 10–24 cm long 0.8–1.5 cm wide, rachis three-winged, ventral one rather indistinct and sometimes intermittent. Pinnae 20–40 pairs, elliptical, 4–7 mm long 2.5–4 mm wide, base unequal, upper side broader than lower. Sori asplenioid, indusia 1–2 mm long, spores regular.

Nom. Jap. Chasensida-modoki, nov.

Hab. Mt. Ali, Pref. Chia-yi, Taiwan (R. Yoroi, Aug. 1968—holotype in TNS).

The three-winged rachides of this variety are similar to that of *A. tripteropus*, but the erect and not proliferous leaves, two-winged and not so breakable stipes agree with those of *A. trichomanes*.

4. **Pyrrosia × pseudo-polydactylis** Serizawa, hybr. nov. *Pyrrosia matsudae* (Hayata) Tagawa × *Pyrrosia polydactylis* (Hance) Ching

Ab anteriore differt squamis rhizomatis margine fimbriato-ciliatis, segmentis lateralibus majoribus, costis segmentorum purpurascentibus; a posteriore differt laminis longioribus elongato-ovatis cum 4–5 segmentis, pilis stellatis longioribus.

Rhizome rather short creeping, about 4 mm thick, densely scaly, scales on the rhizome imbricate, appressed, lanceolate or ovato-lanceolate, 1.5–3 mm long about 0.5 mm wide, apex acuminate, base

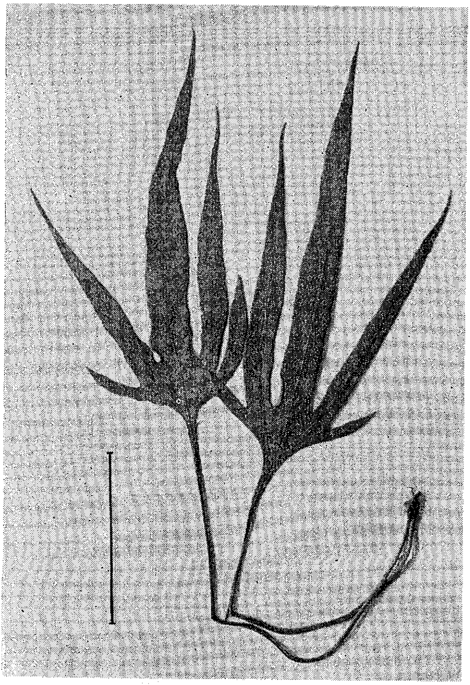

Fig. 3. *Pyrrosia × pseudo-polydactylis* (holotype).

ovate and peltately affixed, rigid in texture, reddish fusco-brown with paler and ciliate margin. Stipes approximate, 6–7 mm apart, 20–30 cm long 2–3 mm thick, at first green and densely clothed with stellate hairs, at length purplish brown and sparsely hairly, base of stipes covered with larger scales, scales on the base of stipes lanceolate, 4–6 mm long, membranaceous, reddish brown, margin same colour and rather sparsely ciliate. Lamina elongato-ovate, 20–30 cm long 10–15 cm wide, base cuneate or broadly cuneate but not cordate, coriaceous, rather irregularly palmately dissected into (3–) 4–5 lanceolate or linear-lanceolate segments, central segment longest, 17–25 cm long 1.8–2.5 cm wide, apex acuminate, margin entire or rarely with 1–2 small projections, inner lateral segments 10–18 cm long 1–2 cm wide, outer lateral segments small or absent, commonly branching from inner lateral segments, but rarely branching from central rachis directly. Lateral segments not always symmetric. Upper surface of lamina greyish green, at first sparsely hairly, at length glabrous except on the purplish brown costae; under surface densely hairly, hairs indistinctly dimorphic, upper one with 7–10 needle-like or broader, 0.35–0.45 mm long and pale brown arms, lower one with rather frizzy, weak arms. Venation campyronoiroid, lateral veins indistinct, 5–6 mm apart, oblique. Sori round, 8–9 rows between costa and margin, occupying the whole under surface of segments, spores irregular.

Nom. Jap. O-momijihitotsuba, nov.

Hab. between Busha (Musha) and Lushan (Rozan) spa, Pref. Nan-tow, Taiwan (S. Serizawa, no. 537, Jul. 1967—holotype in TNS).

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最近，シダ植物の地域フロラに関する研究は著しく進歩している。私も主として日本および台湾のフロラに関する知見をいくつか記してみたいと思う。常に御指導いただいている東京教育大学理学部伊藤洋教授，東京大学農学部倉田悟教授，快く所蔵標本の研究を許していただいた各標本室の皆様に深く感謝の意を表する次第である。

1. アリサンイヌワラビは台湾と中国大陸から知られていた種類であるが，屋久島にも稀に産する。南九州および屋久島のシビイヌワラビは，羽軸上の棘状突起が全くないかあっても短く，葉の切れ込みが浅いことなどで区別されるが，程度の差にすぎないからその変種として扱うのが妥当である。

2. ツクシイヌワラビ（芹沢，シダの会会報 100: 11. 1969）は従来日本でアリサンイヌワラビと称されてきたものであるが，それとは明らかに異なる新種である。基準

標本には屋久島小杉谷のものを選んだが，九州本土以北のものは小羽片が小さく，より深く切れ込んであまり羽軸に沿着せず，別の種類のように見える。台湾の標本（南湖大山，大井次三郎 No. 3912, Jul. 1933, KYO）はむしろ後者に似ている。おそらく中国大陸にも分布しているものと思われる。

3. チャセンシダモドキ（新称）は台湾の阿里山塔山間で鎧礼子氏が採集されたもので，チャセンシダによく似ているが，中軸下面に翼がある点で異なる。葉柄の下面は無翼である。フィリピンの *A. stauntonii* は葉柄下面にも翼があるというから別のものであろう。鱗片の細胞は日本のチャセンシダ（n=72）に比較して小さく，それほど厚膜化しない。台湾にはチャセンシダもイヌチャセンシダも産するが，本変種の胞子は正常であるから雑種とは考えられない。基準標本のほかに検し得た標本は，南投県渓頭阿里山間（伊藤洋，May, 1936, TI）宜蘭県太平山（C. C. Chuang et M. T. Kao, Mar. 1966, TI）などである。

4. オオモミジヒトツバ（新称）はマツダラシャシダとモミジヒトツバの雑種と推定されるもので，台湾の霧社と廬山温泉の間の路傍の，両種が混生している中にあった。マツダラシャシダは葉形の変化が非常に著しい種類であるが，本雑種はどちらかと言えばモミジヒトツバに似ているから区別は容易である。モミジヒトツバからは，葉身が細長いこと，葉裏の星状毛が長いことなどで区別される。

○学名変更５件（北川政夫）Masao KITAGAWA: Some nomenclatural notes on *Aristida, Nothoscordum, Lespedeza, Viola* and *Prenanthes*.

1. **ノゲシバ**（ノゲエノコロ）　ノゲエノコロと呼ばれている満蒙産のイネ科の一種があるが，エノコログサとは似ても似つかぬものなので，和名を変更し，ノゲシバと名付ける。用いられている学名 *Aristida adscenscionis* Linnaeus の原植物はアフリカの西方に浮かぶアセンション島（Ascension Isl.）原産のもので，その後，方々で発見され南北アメリカにも及んでいる。変異性に富んだ類ではあるが，満州方面のものはかなり形態が違っている。即ち，葉は極めて細く，小舌は殆んど発達せずに白短軟毛を生じ，花序は散慢で，小穂は腋部に簇生せず，明るい赤色を帯び，主軸は平滑で，芒が長い。Hance が北京付近のものに命名した *A. vulpioides* Hance がこれに該当する。ただ芒の長さには多少の変化が見られる。

Aristida vulpioides Hance in Ann. Sci. Nat. 5-5: 251 (1866); Tzvelev in Pl. Asiae Centr. 4: 36 (in nota) (1968).

'*A. adscenscionis*' Kitagawa, Lineam. Fl. Mansh. 61 (1939).

Nom. Jap.　Noge-siba (nov.), Noge-enokoro.

Distr.　Mongolia, Manshuria & China bor.